

What is claimed is:

1. A device that provides diagnostic and control capability for equipment from a remote location comprising:
 - an apparatus detached from the equipment comprising a display device,
 - 5 an input device, software executed by the apparatus and a communications device; and
 - a controller attached to the equipment to enable monitoring of the equipment by the apparatus through the communications device.
- 10 2. The device as in claim 1 wherein a unique identifier is stored on the controller.
3. The device as in claim 1 wherein the controller is queried by the apparatus.
- 15 4. The device as in claim 1 wherein the controller transmits data to the apparatus without being queried.
5. The device of claim 4 wherein the data being transmitted is an indication
- 20 detected by the controller of an equipment problem.
6. The device as in claim 3 wherein the controller transmits data in response to the query.

7. The device as in claim 3 wherein the controller is instructed by the software code to gather specific data about the equipment and transmitted to the to the apparatus.

5 8. The device in claim 7 wherein the data is compiled by the software in a user preferred manner.

9. The device of claim 7 wherein the data is collected for a specific period of time after which time the data is lost and a new data collection period begins.

10

10. The device of claim 9 wherein the data is available for review by a user on the apparatus during the specific period of time.

11. The device of claim 1 wherein the software code is programmed with acceptable operational limits for the equipment associated with the identifier.

15

12. The device of claim 11 wherein the limits are compared to the data retrieved from said controller, if results are within the acceptable operational limits the data no further action is taken, if results are not within acceptable said limits then apparatus carries out a predefined task.

20

13. The device of claim 12 wherein the predetermined task is alerting the user as to the condition.

25 14. The device of claim 12 wherein the predetermined task is alerting a technician as to the performance of the equipment

15. The device of claim 12 wherein the predetermined task is transmitting data to the equipment to adjust certain operational features of the equipment.

16. The device of claim 7 wherein the data is recorded and stored and
5 available for review by the user.

17. A method that provides remote diagnostic and control capability for equipment comprising:

monitoring the equipment through a controller attached the equipment
10 with a remote apparatus comprised of an input device, display device, a communications device and software code executed by the apparatus.

18. The method of claim 17 further comprising the step of storing a unique identifier on a controller that is attached to the equipment

15

19. The method of claim 17, further comprising the step of:
selecting with the software code specific data collection wherein the software code records the data of pre-selected features of the equipment.

20. The method of claim 17 further comprising the step of:
querying the controller with request for data, wherein the data is transmitted to the apparatus.

21. The method of claim 20 further comprising the step of responding and
25 transmitting a response to the query

22. The method of claim 21 further comprising the step of compiling of the data by the apparatus and stored for a period of time.

23. The method of claim 22 wherein data collection is gathered for a fixed
5 period of time after which the data is removed and a new data period is commenced.

24. The method of claim 22 wherein the data is recorded and stored and available for review.
10

25. The method of claim 22 further comprising the step of comparing the data received from the controller with pre-selected limits, if the results of the comparison are outside of the acceptable limits then the apparatus proceeds with a predefined action; if the results of the comparison are with the acceptable limits
15 then no further action is taken.

26. The method of claim 25 wherein the predefined action is alerting an individual.

20 27. The method of claim 25 wherein the predefined action is alerting a technician as to the performance of the equipment.

28. The method of claim 25 wherein the predefined action is transmitting data to the equipment to adjust certain features of the equipment.

25

29. The method of claim 26 wherein alerting an individual is accomplished by sending a message.

30. The method of claim 29 wherein the predefined action is playing a
5 prerecorded message.

31. A device that provides remote diagnostic and control capability for equipment comprising:

remote means for monitoring the equipment through a controller attached
10 to the equipment.

32. The device of claim 31 wherein the means for monitoring is an apparatus that is comprised of an input device, display device, a communications device and software code executed by the apparatus.

15 33. The device of claim 31, further comprising means for storing a unique identifier on the controller.

34. The device of claim 31, further comprising means for selecting with
20 software code specific data collection wherein the software code records the data of pre-selected features of the equipment.

35. The device of claim 31 further comprising means for compiling the data from the equipment by querying the controller with request for data.

25

36. The device of claim 35 wherein data collection is gathered for a fixed period of time after which the data is removed and a new data period is commenced.

5 37. The device of claim 35 wherein the data is recorded and stored and available for review.

10 38. The device of claim 35 further comprising means for comparing the data received from the controller with pre-selected limits, if the results of the comparison are outside of the acceptable limits then the apparatus proceeds with a predefined action, if the results of the comparison are with the acceptable limits then no further action is taken.

15 39. The device of claim 38 wherein the predefined action is alerting an individual.

40. The device of claim 39 wherein the predefined action is alerting a technician as to the performance of the equipment.

20 41. The device of claim 38 wherein the predefined action is transmitting data to the equipment to adjust certain features of the equipment.

42. The device of claim 39 wherein alerting an individual is accomplished by sending a message.

25

43. The device of claim 42 wherein the predefined action is playing a prerecorded message.